

What is claimed is:

CLAIMS

1. A method of making an edible substrate, the method comprising:
5 providing an edible material having a viscosity in the range of approximately 1000-9000 centipoise;
providing a backing material;
slot coating the edible material onto the backing material to form a substantially
contiguous layer of the edible material; and
10 drying the layer of edible material to form an edible substrate that is adapted to receive an edible ink composition and be manually peeled away from the backing material.
2. The method of claim 1, further comprising printing an image onto the edible substrate with an edible ink composition.
- 15 3. The method of claim 2, wherein printing an image comprises applying an ink by lithographic or gravure printing.
4. The method of claim 1, further comprising:
removing the edible substrate from the backing material and applying the edible substrate to a baked good.
- 20 5. The method of claim 1, wherein the slot coating step comprises forming a layer of the edible material approximately 50 to about 750 micrometers thick.
6. The method of claim 1, wherein the edible material is substantially stable in low relative humidity environments.
7. The method of claim 1, wherein the backing material comprises a paper coated
25 with one or more of the following: corona, wax, plastic, cellulose, polyethylene or polypropylene.

8. The method of claim 1, wherein the backing material comprises a polymeric film.
9. The method of claim 1, wherein the edible material is substantially stable when exposed to a temperature above about 90 °C.
10. The method of claim 1, wherein the drying step comprises drying the edible material until the weight of the edible material is reduced by approximately 30 to 50%.
11. The method of claim 1, wherein the edible material includes water and wherein the drying step comprises removing more than about 90% of the water from the edible material.
12. The method of claim 1, further comprising:
selectively interrupting the slot coating to form a plurality of separate substantially contiguous layers of the edible material.
13. The method of claim 1, further comprising:
cutting the backing material with the edible material applied thereto into a plurality of discrete segments.
14. The method of claim 1, wherein the edible material is prepared by:
blending a dry mixture comprising about 5 wt% to about 28 wt% starch, up to about 16 wt% stabilizer and about 1 wt% to about 20 wt% texturizer;
blending a liquid mixture comprising about 25wt% to about 70 wt% water, about 5 wt% to about 35 wt% humectant, up to about 10 wt% emulsifier, and up to about 10 wt% plasticizer; and
combining the dry mixture and the liquid mixture to provide a flowable mixture.
15. The method of claim 1, further comprising:
spraying the edible material onto the backing material in combination with the slot-coating to form the substantially contiguous layer the edible material.

16. The method of claim 1, wherein the edible material comprises:
an emulsifier;
a plasticizer;
a stabilizer;
5 a humectant;
a texturizer;
starch; and
water.
17. The method of claim 16, wherein the edible material, when formed into a
10 substantially non-flowable substrate, is stable in an environment having a temperature
about -35°C to about 275°C , and a humidity level greater than about 5%.
18. The method of claim 16, wherein the emulsifier is present at up to about 10 wt%
of the total edible material.
19. The method of claim 16, wherein the plasticizer is present at up to about 10 wt%
15 of the total edible material.
20. The method of claim 16, wherein the stabilizer is present at up to about 16 wt% of
the total edible material.
21. The method of claim 16, wherein the humectant is present at about 5 wt% to about
35 wt% of the total edible material.
22. The method of claim 16, wherein the texturizer is present at about 1 wt% to about
20 20 wt% of the total edible material.
23. The method of claim 16, wherein the starch is present at about 5 wt% to about 28
wt% of the total edible material.
24. The method of claim 16, wherein the water is present at about 25 wt% to about 70
25 wt % of the total edible material.

25. The method of claim 16, wherein the edible material further comprises a disintegrant.
26. The method of claim 16, wherein the edible material comprises:
up to about 10 wt% emulsifier;
5 up to about 10 wt% plasticizer;
up to about 16 wt% stabilizer;
about 5 wt% to about 35 wt% humectant;
about 1 wt% to about 20 wt% texturizer;
starch; and
10 water.
27. A system for making an edible substrate, comprising:
a reservoir to contain an edible material past the slot coater;
a slot-coater configured to receive an edible material from the reservoir and to
slot-coat the edible material onto a backing material to form a substantially contiguous
15 layer of the edible material;
a transport mechanism to transport a backing material past the slot coater;
a controller to regulate slot-coating of the edible material from the slot-coater onto
the backing material; and
a drying system comprising a heating mechanism to dry the layer of edible
20 material and thereby form an edible substrate adapted to receive an edible ink
composition and be manually peeled away from the backing material.
28. The system of claim 27, wherein the controller is adapted to interrupt slot-coating
to form a plurality of separate layers of the edible material, the separate layers separated
by a gap.
- 25 29. The system of claim 27, wherein the drying system is configured to dry the layer
of edible material so that moisture is removed to reduce a weight of the edible material by
approximately 30 to 50%.

30. The system of claim 29, wherein the drying system is further configured to remove at least about 90% of water included in the edible material.
31. The system of claim 28, further comprising:
a cutting system configured to cut the backing material into a plurality of discrete
5 segments at the gap separating the plurality of layers of the edible material.
32. The system of claim 31, further comprising:
a rack system including a plurality of arms, where each arm is configured to receive a discrete segment of the backing material and a layer of edible material supported thereon.
- 10 33. The system of claim 32, wherein the rack system further includes one or more drying units configured to expose a layer of the edible material to heated air.
34. The system of claim 33, wherein drying units of the rack system are configured to remove at least about 90% of water included in the edible material.
35. The system of claim 27, further comprising:
15 a printing device configured to apply an image to an edible substrate using an edible ink composition.
36. The system of claim 35, wherein the printing device is configured to apply an image by lithographic blanket transfer printing, flexographic printing, or gravure printing.
37. The system of claim 27, wherein the edible substrate is approximately 50 to 750
20 micrometers in thickness.
38. The system of claim 27, wherein the edible material has a viscosity in the range of approximately 1000-9000 centipoise.
39. The system of claim 27, wherein the edible material is substantially stable in low relative humidity environments.

40. The system of claim 27, wherein the edible material comprises:
up to about 10 wt% emulsifier;
up to about 10 wt% plasticizer;
up to about 16 wt% stabilizer;
5 about 5 wt% to about 35 wt% humectant;
about 1 wt% to about 20 wt% texturizer;
starch; and
water.
41. The system of claim 27, wherein the backing material comprises a paper coated
10 with one or more of the following: corona, wax, plastic, cellulose, polyethylene or
polypropylene.
42. The system of claim 27, wherein the edible material is substantially stable when
exposed to a temperature above about 90 °C.
43. A method of making an edible substrate, the method comprising:
15 providing an edible material having a viscosity in the range of approximately
1000-9000 centipoise;
providing a backing material;
spraying the edible material onto the backing material to form a substantially
contiguous layer of the edible material; and
20 drying the layer of edible material to form an edible substrate that is adapted to
receive an edible ink composition and be manually peeled away from the backing
material.